

In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims

Claim 1 (previously amended): A modified antiangiogenic peptide comprising a reactive group which reacts with amino groups, hydroxyl groups, or thiol groups on blood components to form stable covalent bonds wherein said reactive group is selected from the group consisting of succinimidyl and maleimido groups.

Claim 2 (currently amended): The ~~as-modified~~ peptide of claim 1 wherein said peptide is a kringle 5 peptide.

Claim 3 (currently amended): ~~A kringle 5 peptide according to~~ The modified peptide of claim 2 wherein said ~~derivative-modified peptide~~ is reactive with blood proteins.

Claim 4 (currently amended): ~~A kringle 5 peptide according to~~ The modified peptide of claim 3, wherein the ~~derivative-modified peptide~~ is reactive with a thiol group on a blood protein.

Claim 5 (currently amended): ~~A kringle 5 peptide according to~~ The modified peptide of claim 2 wherein the peptide is selected from the group consisting of SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, and SEQ ID NO:9.

Claim 6 (currently amended): ~~A kringle 5 peptide according to~~ The modified peptide of claim 2 wherein the peptide is selected from the group consisting of SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15 and SEQ ID NO:16.

Claim 7 (currently amended): A composition comprising a derivative of a kringle 5 peptide or analog thereof, said derivative comprising a reactive group which reacts with amino groups, hydroxyl groups or thiol groups on blood components to form stable covalent bonds wherein said reactive group is selected from the group consisting of succinimidyl and maleimido groups for use in a method of treating angiogenesis in a human.

Claim 8 (original): The composition of claim 7 wherein said derivative is reactive with blood proteins.

Claim 9 (original): The composition of claim 7 wherein said derivative is reactive with a thiol group on a blood protein.

Claim 10 (original): A derivative of a kringle 5 peptide, said derivative comprising a maleimido group which reacts with a thiol group on human serum albumin to form a covalent bond.

Claim 11 (original): The derivative of claim 10 wherein said peptide is selected from SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8 and SEQ ID NO:9.

Claim 12 (original): The derivative of claim 10 wherein said peptide is selected from SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15 and SEQ ID NO:16.

Claim 13 (currently amended): A composition comprising a derivative of an anti-angiogenic peptide, said derivative comprising a maleimido group which reacts with a thiol group on human serum albumin to form a covalent bond, for use in a method of treating wherein said derivative is capable of inhibiting or reducing angiogenesis in a human patient in need thereof.

Claim 14 (original): The composition of claim 13 wherein the peptide is a kringle 5 peptide.

Claim 15 (original): The composition according to claim 14, wherein the peptide is selected from SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8 and SEQ ID NO:9.

Claim 16 (currently amended): ~~A~~The composition according to claim 14 wherein the peptide is selected from SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15 and SEQ ID NO:16.

Claim 17 (cancelled).

Claim 18 (cancelled).

Claim 19 (original): A modified kringle 5 peptide selected from the group consisting of NAc-Pro-Arg-Lys-Leu-Tyr-Asp-Lys-NH₂; NAc-Arg-Lys-Leu-Tyr-Asp-Tyr-Lys-NH₂; Nac-Tyr-Thr-Thr-Asn-Pro-Arg-Lys-Leu-Tyr-Asp-Tyr-Lys-NH₂; NAc-Arg-Asn-Pro-Asp-Gly-Asp-Val-Gly-Gly-Pro-Trp-Ala-Tyr-Thr-Thr-Asn-Pro-Arg-Lys-Leu-Tyr-Asp-Tyr-Lys-NH₂; NAc-Arg-Asn-Pro-Asp-Gly-Asp-Val-Gly-Gly-Pro-Trp-Lys-NH₂; NAc-Pro-Arg-Lys-Leu-Tyr-Asp-Tyr-Lys-(Nε-MPA)-NH₂; (MPA-AEEA)-Pro-Arg-Lys-Leu-Tyr-Asp-Tyr-NH₂ and (MPA)-Pro-Arg-Lys-Leu-Tyr-Asp-Tyr-NH₂.

Claim 20 (original): A modified kringle 5 peptide selected from the group consisting of: NAc-Tyr-Thr-Thr-Asn-Pro-Arg-Lys-Leu-Tyr-Asp-Tyr-Lys-(Nε-MPA)-NH₂; (MPA-AEEA)-Tyr-Thr-Thr-Asn-Pro-Arg-Lys-Leu-Tyr-Asp-Tyr-NH₂; (MPA)-Tyr-Thr-Thr-Asn-Pro-Arg-Lys-Leu-Tyr-Asp-Tyr-NH₂; NAc-Arg-Asn-Pro-Asp-Gly-Asp-Val-Gly-Gly-Pro-Trp-Ala-Tyr-Thr-Thr-Asn-Pro-Arg-Lys-Leu-Tyr-Asp-Tyr-Lys-(Nε-MPA)-NH₂;

(MPA-AEEA)-Arg-Asn-Pro-Asp-Gly-Asp-Val-Gly-Gly-Pro-Trp-Ala-Tyr-Thr-Thr-Asn-Pro-Arg-Lys-Leu-Tyr-Asp-Tyr-NH₂; and

(MPA)-Arg-Asn-Pro-Asp-Gly-Asp-Val-Gly-Gly-Pro-Trp-Ala-Tyr-Thr-Thr-Asn-Pro-Arg-Lys-Leu-Tyr-Asp-Tyr-NH₂.

Claim 21 (original): A derivative of kringle 5 peptide selected from the group consisting of NAc-Arg-Asn-Pro-Asp-Gly-Asp-Val-Gly-Gly-Pro-Trp-Lys-(Nε-MPA)-NH₂; MPA-AEEA)-Arg-Asn-Pro-Asp-Gly-Asp-Val-Gly-Gly-Pro-Trp-NH₂;
(MPA)-Arg-Asn-Pro-Asp-Gly-Asp-Val-Gly-Gly-Pro-Trp-NH₂;
NAc-Arg-Lys-Leu-Tyr-Asp-Tyr-Lys-(Nε-MPA)-NH₂;
(MPA-AEEA)-Arg-Lys-Leu-Tyr-Asp-Tyr-NH₂;
(MPA)-Arg-Lys-Leu-Tyr-Asp-Tyr-NH₂;
NAc-Pro-Arg-Lys-Leu-Tyr-Asp-Lys-(Nε-MPA)-NH₂;
(MPA-AEEA)-Pro-Arg-Lys-Leu-Tyr-Asp-NH₂;
(MPA)-Pro-Arg-Lys-Leu-Tyr-Asp-NH₂;
NAc-Pro-Arg-Lys-Leu-Tyr-Asp-Tyr-Lys-(Nε-AEEA-MPA)-NH₂; and
NAc-Pro-Arg-Lys-Leu-Tyr-Asp-Tyr-Lys-(Nε-AEEA_n-MPA)-NH₂.